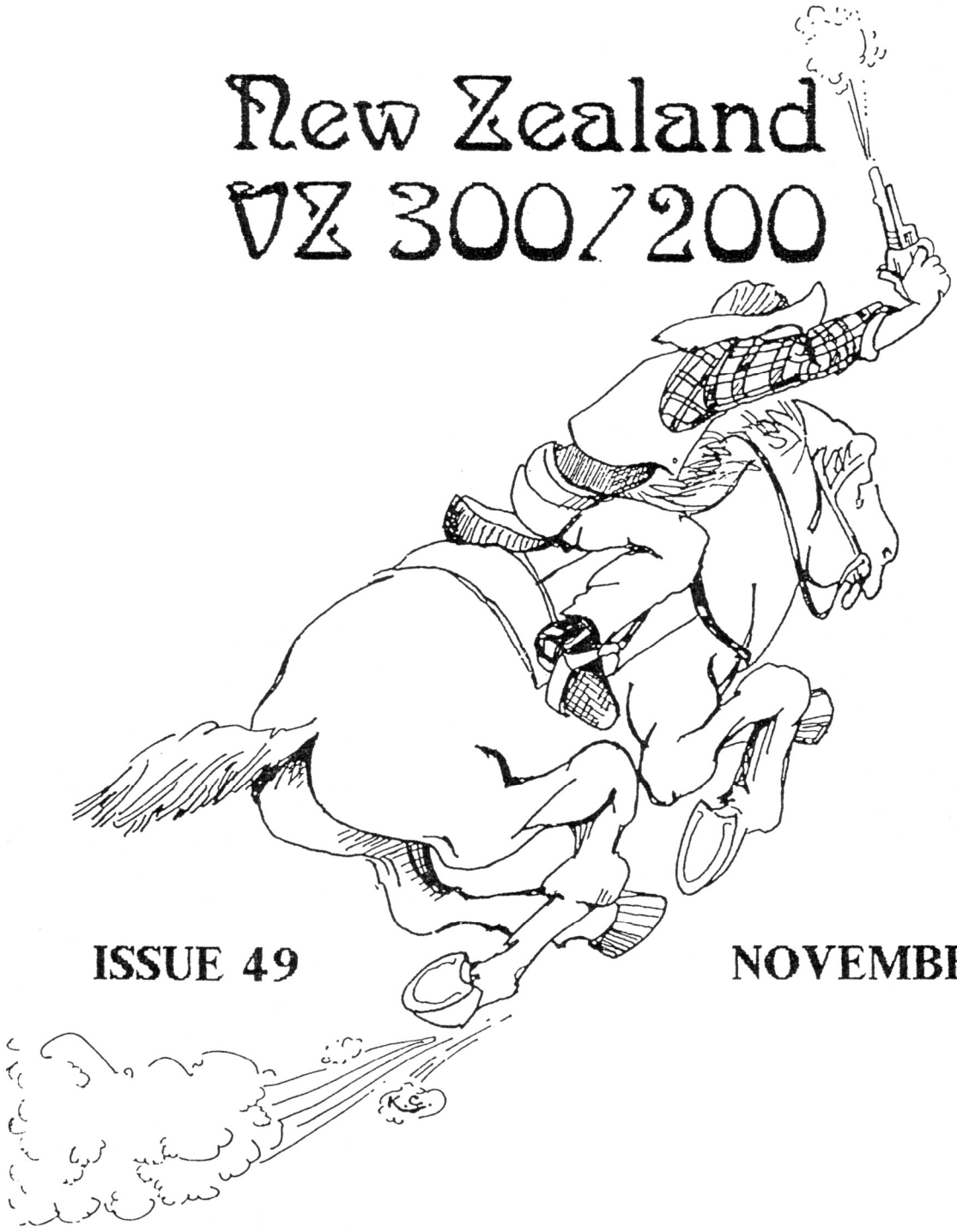
VZ LINK magazine

New Zealand VZ 300/200



ISSUE 49 NOVEMBER 1990

Computer users club

FROM ME TO YOU

I hope you all enjoyed the last issue of VZ Link.
A lot of hard work was put into the items by those that contributed them and it is always good to receive good comments after each issue.

Please note that the club meeting will now be held on the following date. :-

SATURDAY 24 NOVEMBER 1990

At the Railway Social Club Hall

Beach Road, Auckland City

Starting at 10.30 am

Please remember to bring a plate of goodies for lunch.
I hope to see you all there.

COMPETITION

As usual I will be giving a little something to the member who has contributed the most to the club over the past year.
If you want to put someone's name forward for this, please do so as soon as possible.

LAST ISSUE

NOTES AND ERRATA

In the Happy Returns Program on the back page :-
Line 9 should have 24 spaces after " HAPPY BIRTHDAY"

THIS ISSUE

We bring you OUTLAW, a great low resolution shoote'm up game written by Ken Clarke.

Peter Patterson tell's us how to enable semigraphics six on the VZ.
Just remember, make sure you know what you are doing before starting.

For all you spy type users try ZGH LTEKTZ from Steve Dale.

We conclude the Micro Magic series with a look at some more sort's.

Last but not least, we start a new mini series called POTPOURRI which will be appeariing as required.
The purpose of potpourri is explained on the page, so go to it.

NEXT ISSUE

Next month we bring you Depth charge, another game by Ken Clarke.

A zero power ram project by Joe Leon.

We also start a new Adventure program called MAZE OF DOOM by Steve Dale. This is a really long program and it will take a few issues to print it all.

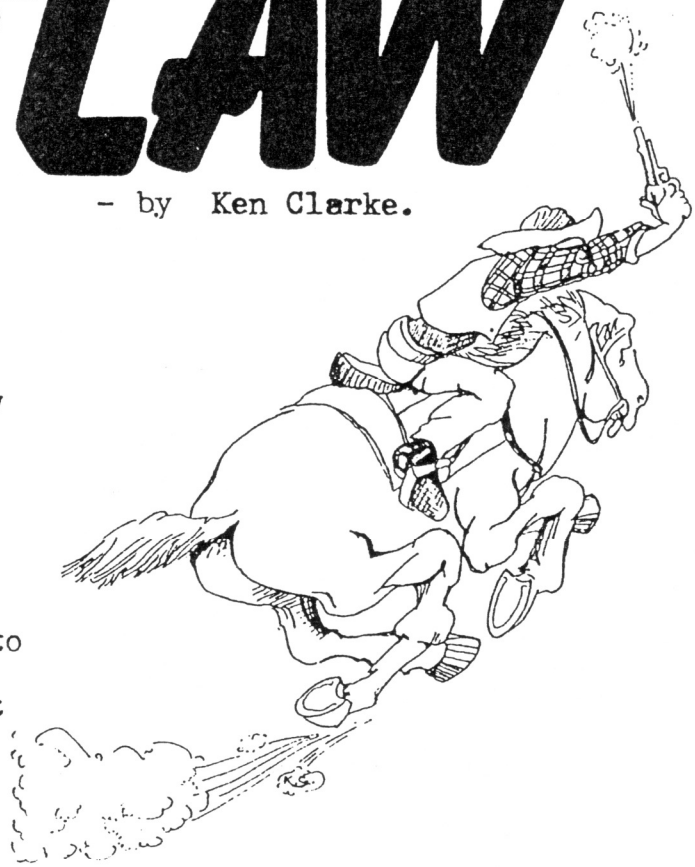
There will also be a Software review and a couple of other items to keep you amused.

Hopefully I will have the December issue ready for you all to collect at the next meeting. For those that can make it.

Well, I will see you then if not before.

OUTLAW

- by Ken Clarke.



Some of the best low resolution graphics are featured in this shoot-em-up fast reaction game. To lend realism, something approaching the effect of a slow animated film by drawing and re-drawing the Outlaws as they fall dead. There is also the sound of gun fire added for even more realism.

Altogether, there are five of the villains who have ridden into town. They are a trigger-happy bunch of dudes ready to shoot at anything and anyone. They appear from anywhere. The only way to deal with them is to face them square on and remember - fire to kill or be killed.

Watch them very carefully, and as each one draws his six-shooter, eliminate him by hitting numbers 1 to 5 - before he can pull his trigger. You won't get a second chance! To play another round, then touch the Space Bar! And good luck! You will need it!

NOTE: For the expert gun-slinging Sherrif - alter the figure 30 in line 100 to a lower figure - that is if you dare!

```
1 CLS:COLOR,1:CLEAR1000:GOSUB2000
5 F=0:N=0:DIMX(6):DIMA(6):DIMA$(4)
10 A$(1)=" -▀▄-":A$(3)="  ▗▀▖ ":A$(4)=" ▗▌▐▖"
20 FORY=2TO26STEP6:F=F+1:X(F)=RND(10)
30 A$(2)=" ▜"+(CHR$(F+240))+"▛"
40 GOSUB1000:NEXTY
50 W=RND(71)+20:FORS=1TOW:NEXTS
60 T=RND(5):FORA=1TO5:IFA(A)=0,GOTO66:
65 NEXTA:GOTO162
66 IFA(T)=1,GOTO60
70 A(T)=1:Q=2+(6*(T-1))
90 PRINT@(X(T)+2)*32+Q-32,"▚▞▚▞▚"
100 L=RND(5)+30:'****
110 T$=STR$(T):FORR=1TOL
120 IFVAL(INKEY$)=VAL(T$),GOTO200
130 NEXTR:FORU=1TO5
135 PRINT@(X(T)+2)*32+Q-32,"▗▀▀▀▀▖"
138 PRINT@(X(T)+2)*32+Q-34,"  ";TAB(Q+5);"  ":NEXTU
140 FORZ=1TO2:FORV=1TO150STEP10:POKE-28685,V:X=USR(0):NEXTV:NEXT
145 FORU=1TO25:NEXTU:PRINT@(X(T)+2)*32+Q-32,"▗▀▀▀▖"
150 PRINT@(X(T)+3)*32+Q-32," ▝▚▞▘ "
160 PRINT@10,"YOU'RE DEAD!"
162 P$=" ":IFN>1ORN=0,P$="S"
165 PRINT@485,"YOU KILLED "N" OUTLAW"P$;
170 IFINKEY$<>" ",170ELSECLS:RUN5
200 D=RND(4)+2:FORV=150TO1STEP-10:POKE-28685,V:X=USR(0):NEXT
```

N.B. GRAPHIC CODES

s-(-)- sQYW sFsD

sA S

SF(K)DA

GY(@)YH
2s 2s

sG($)Hs
DUYIF

```
205 N=N+1:F=T:Y=2+(6*(T-1))
210 IFD=3,GOSUB300
215 IFD=5,GOSUB500
220 IFD=4,GOSUB400
221 IFD=6,GOSUB600
225 GOTO50
300 A$(2)=" ▗▟▙▖ ":A$(1)=" -▀▀- ":A$(3)=" ▗▀▖ ":A$(4)=" ▟ ▙ "      sF(.)Ds s-Y-s   sQYWs  sFsDs
310 FORU=1TO50:NEXTU:GOSUB1000
315 A$(1)=" -▀▀- ":A$(3)="▝ ▘ ":A$(2)=" ▗▟▙▖ ":A$(4)=" ▝   ▘ "      s-Y-s   RQYWE   QY(.)YW QRsEW
322 FORU=1TO50:NEXTU:GOSUB1000
325 A$(1)=" -▀▀- ":A$(2)=" ▗▟▙▖ ":A$(3)=" ▝▘▝▘ "                   s-Y-s   sG(.)Hs sHYGs
340 FORU=1TO50:NEXTU:GOSUB1000
345 A$(4)="▝▘▝▘ ▝▘▝▘"                                               GYsYH
350 FORU=1TO50:NEXTU:GOSUB1000
355 X(T)=X(T)+1:A$(3)="▗▟▙▖▗▟▙▖":A$(4)="▝     ▘"                   TGYHT   R3sE
360 FORU=1TO50:NEXTU:GOSUB1000
370 A$(1)="     ":A$(2)=" -▀▀- ":A$(3)="▗▟▙▖▗▟▙▖":A$(4)=" ▝ ▘ "     5s      s-Y-s   DF(.)DF sEsRs
380 FORU=1TO50:NEXTU:GOSUB1000
385 A$(2)=" ▗▟▙▖ ":A$(3)="▗▟▙▖▗▟▙▖":A$(4)=" ▝▘ "                   2sT2s   DF(O)DF 2sY2s
395 FORU=1TO50:NEXTU:GOSUB1000:RETURN
400 A$(2)=" ▗▟▙▖ ":A$(1)=" -▀▀- ":A$(3)=" ▗▀▖ ":A$(4)=" ▟ ▙ "      sF(*)Ds s-Y-s   sQYWs  sFsDs
410 FORU=1TO50:NEXTU:GOSUB1000
415 A$(2)=" ▗▟▙▖ ":A$(3)=" ▗▀▖ ":A$(4)=" ▝▘▝▘ "                   sU(*)Is 2sAWs   2s2Hs
425 FORU=1TO50:NEXTU:GOSUB1000
428 A$(1)="-▀▀- ":A$(2)="▗▟▙▖▗▟▙▖":A$(3)=" ▗▀▖ ":A$(4)=" ▝▘▝▘ "    -Y-2s   ASAHs   2sAWs  2sEGW
440 FORU=1TO50:NEXTU:GOSUB1000
450 A$(1)="     ":A$(2)="▗▟▙▖   ▝":A$(3)="O▗▟▙▖▗▟▙▖":A$(4)="▗▟▙▖ ▝▘▝▘"  5s      TW2sQ   O2Z2Y  TIsYS
457 PRINT@X(T)*32+Y-32,"-▀▀-"                                      -Y-
460 FORU=1TO50:NEXTU:GOSUB1000:RETURN
500 A$(1)=" -▀▀- ":A$(3)=" ▗▀▖ ":A$(4)=" ▟ ▙ ":A$(2)=" ▗▟▙▖ "      s-Y-s   sQYWs   sFsDs  sF(.)Ds
515 FORU=1TO50:NEXTU:GOSUB1000
520 A$(1)="     ":A$(2)=" -▀▀- ":A$(3)=" ▗▀▖ ":A$(4)=" ▗▟▙▖ "      5s      s-Y-s   sG(:)Hs sFYDs
530 FORU=1TO50:NEXTU:GOSUB1000
540 A$(2)=" ▗▟▙▖ ":A$(3)=" ▝▘▝▘ ":A$(4)=" ▝   ▘ "                  sQ(")Ws sHYGs   sRsEs
546 PRINT@X(T)*32+Y-33,"-▀▀-"                                      -Y-
550 FORU=1TO50:NEXTU:GOSUB1000:RETURN
600 A$(2)=" ▗▟▙▖ ":A$(1)=" -▀▀- ":A$(3)=" ▗▀▖ ":A$(4)=" ▟ ▙ "      sF(*)Ds s-Y-s   sQYWs  sFsDs
610 FORU=1TO50:NEXTU:GOSUB1000
615 A$(2)=" ▗▟▙▖ ":A$(3)=" ▗▀▖ ":A$(4)=" ▝▘▝▘ "                   sU(:)Is sQS2s   s2G2s
625 FORU=1TO50:NEXTU:GOSUB1000
630 A$(2)=" ▗▟▙▖▗▟▙▖":A$(3)=" ▗▀▖ " ":A$(4)=" ▝▘▝▘ ":A$(1)=" -▀▀-"   sGSAS   sQSsRs  QHR2s  2s-Y-
640 FORU=1TO50:NEXTU:GOSUB1000
650 A$(1)="     ":A$(2)="   ▗▟▙▖":A$(3)="▗▟▙▖▗▟▙▖O":A$(4)="▗▟▙▖ ▗▟▙▖"  5s      3sQT    IYSZO  AYRUT
658 PRINT@X(T)*32+Y-29,"-▀▀-"                                      -T-
660 FORU=1TO90:NEXTU:GOSUB1000:RETURN
1000 FORI=1TO4:PRINT@(X(F)+I)*32+Y-32,A$(I):NEXTI:RETURN
2000 FORV=-28688TO-28676:READD:POKEV,D:NEXTV
2001 DATA243,229,033,250,000,001,003,000,205,092,052,225,201
2003 POKE30862,240:POKE30863,143
2009 PRINT:PRINT:B$="   ▗▟▙▖▗▟▙▖ "                    4sQ2YW
2010 C$="  ▟ ▙      ▗▟ ▙  ▀▀▀  ▝      ▘"  4sU2sI5sFWsIsQT2sW5sW
2020 D$="  ▟ ▙  ▟ ▙  ▟ ▙  ▗▟▙▖  ▝▘ ▝▘  ▝▘" 4sU2sIsUsIsU2sIsQTIsEWsWsG
2030 E$="  ▝▀▀▘  ▝▀▘  ▟ ▙  ▝▀▘   ▝▘▝▘▝▘"  4sE2TRsETRsU2sIsHTR2sEGEG
2040 PRINTB$:PRINTC$:PRINTD$:PRINTE$
2050 PRINT@303,"- BY":PRINT@402,"KEN CLARKE."
2060 B$="▗▟▙▖ FIVE OUTLAW DESPERADOES ARE ON THE RAMPAGE ▗▟▙▖"
2070 C$="TRIGGER HAPPY AND LIKELY TO APPEAR FROM ANYWHERE "
2080 D$="THEIR FIREPOWER IS DEADLY ▗▟▙▖ WATCH CAREFULLY AND "
2090 E$="OUTDRAW AND FIRE TO KILL OR BE KILLED ▗▟▙▖ ELIMINATE "
2100 F$="EACH IN TURN BY HITTING NUMBERS 1 TO 5 ▗▟▙▖"
2110 G$="▗▟▙▖ ARE YOU READY TO TAKE THEM ON ▗▟▙▖?"
2120 B$=B$+C$+D$+E$+F$
2130 FORQ=1TO218:PRINT@448,LEFT$(B$,32);
2140 B$=MID$(B$,2,LEN(B$))+LEFT$(B$,1):NEXT
2150 PRINTG$;
2160 FORQ=1TO4000:NEXT:CLS:RETURN
```

N.B GRAPHIC CODES

s=space 2Y= 2 graphic Y
(:)= inverse :
(Both O and - are not graphics)

SHELL SORT

Nothing to do with Mary-Anne sorting shells by the sea shore.
A Mr. D.Shell devised this one. And he must have been either a gambler or a student of the Laws of Chance. He considered that if he tinkered with the random list before Bubble Sorting them, the quicker it would run. By doing a sort of organised random sort he would increase the chances of the final sort zipping through the list like streaked lightning. He was right. Then bigger the list the better the chances. So here we have a sort that is suited for very long lists.

You will need your 13 cards and TWO coins, any coins will do.
Lay the cards in a row in random order. It will help if you put the KING somewhere about the middle of the row. Place a coin below the leftmost card, card No.1. This will be called the COINCARD. Now for the rules according to Mr Shell....

Count the cards - 13. Divide by 2 (ignore any reminder) = 6
The 6th card from the left is called the LINK.
The number 6 is called the LINK NUMBER.
Use your other coin to mark the space between the 6th and 7th card.

ADD LINK NUMBER to COINCARD. 6 + 1 = 7
Now ADD the 7 to the LINK NUMBER. 6 + 7 = 13
PUSH UP cards 1, 7 and 13. We would also push up 14 but there isn't a card 14. We only have 13.
The cards pushed up form the first CHAIN.
BUBBLE SORT the three cards.
In case you've forgotten how, here's what to do...

Compare and sort cards 1 and 7.
Compare and sort cards 1 and 13.
Compare and sort cards 7 and 13.
Here ends the first CHAIN.
Push the cards back in line.

Move the coin from card No.1 to card No.2. This is the new COINCARD.
ADD LINK NUMBER to COINCARD 2 + 6 = 8.
PUSH UP cards 2 and 8. As before we cannot push up card 14 as there isn't one.
Compare and sort 2 and 8
That ends the SECOND LINK.
Push the cards back in line.

Don't fret. It will get more exciting in a moment.

Move the coin to card No.3. This is the new COINCARD.
ADD LINK NUMBER to the COINCARD. 6 + 3 = 9.
PUSH UP 3 and 9.
Compare and sort 3 and 9.
End of THIRD LINK.
Push the cards back in line.

Continue moving the coin and comparing and sorting as above until you have completed the SIXTH CHAIN. That is when the coin reaches card 6.

Take the coin back to 1.
Divide the LINK NUMBER by 2 (ignoring any remainder) 6 ÷ 2 = 3.
LINK NUMBER is now 3.
You will be adding 3 this time.
Place 2nd coin between cards 3 and 4.
PUSH UP cards 1, 4, 7, 10 and 13.
Compare and sort 1 & 4, 1 & 7, 1 & 10, 1 & 13.
Compare and sort 4 & 7, 4 & 10, 4 & 13.
Compare and sort 7 & 10, 7 & 13.
Compare and sort 10 & 13.
PUSH DOWN the cards. Move the coin to No.2.
PUSH UP cards 2, 5, 8 and 11.
Compare and sort 2 & 5, 2 & 8, 2 & 11.
Compare and sort 5 & 8, 5 & 11.
Compare and sort 8 & 11.
PUSH DOWN the cards. Move the coin to 3 (the LINKCARD).
PUSH UP 3, 6, 9 and 12.
Compare and sort 3 & 6, 3 & 9, 3 & 12.
Compare and sort 6 & 9, 6 & 12.
Compare and sort 9 & 12.
PUSH DOWN the cards.
BUBBLE SORT

The coin has reached the LINKCARD so it goes back to No.1.
Dividing the LINK NUMBER by 2 (ignoring any remainder) = 1,
so with the coin back at No.1, compare No.1 with No.2, swap if necessary.
Then place the coin on No.2, compare and sort 2 & 3, move coin, 3 & 4, move coin, 4 & 5 and all the way up until the coin reaches card 12.
Then from 1 to 11, 1 to 10 etc. until the last PASS is done, which will be 1 & 2.

All we need now is a program that will do all that. In fact I got so carried away with the success of the first example, I prepared 2 examples. The first READs Playing Cards from DATA. PRINTs the list so that you can see the cards changing places. A SOUND indicates the beginning of the final BUBBLE SORT. And, believe me, it's fast.

NOTE: The words in DATA are preceded by single letters to allow them to be sorted in alphabetical order, and each item is 8 characters long. The words used for variables relate to the explanation above.

```
10 'EXAMPLE SHELL SORT
30 'DATA NAMES ARE PRECEDED BY      A LETTER FOR ALPHA-SORTING
40 'PROGRAM IS FOR STUDY OF         SUB-ROUTINES
100 CLEAR3000:LIMIT=100:DIMZ$(LIMIT):CLS
110 DATAE    FIVE,B     TWO,J     TEN,A     ACE,H   EIGHT
114 DATAM    KING,C   THREE,D    FOUR,I    NINE,F     SIX
118 DATAK    JACK,G   SEVEN,L   QUEEN
130 FORI=1TO13:READZ$(I):NEXT
140 LIMIT=I-1:LCARD=INT(LIMIT/2):LNUMB=LCARD+1
155 '"SHELLSORT
160 GOSUB300:PRINT@150,"SHELL"
170 A=1
180 FORCOIN=1TOLCARD
190 FORCHAIN=LCARDTOLIMITSTEPLNUMB
200 IFZ$(COIN)>Z$(CHAIN)THENGOSUB400
210 IFCHAIN>LIMITTHENLCARD=INT(LNUMB/2):GOTO220
220 NEXT
230 A=A+1
240 NEXT
250 PRINT@150,"BUBBLE":SOUND30,1
255 '"BUBBLESORT
```

INSERTION SORT

Here is a program where the sorting is actually done by the operator. As Z$(I) from 1 to 12 are the months of the year, than the I used to store other information is made the same.
This means that if Z$(I)="JULY" then Z(I) will be a 7.
Extra sub-routines can be added to allow for changing the information set against each month, or perhaps, link two strings together.
This way a Bubble Sort could be used to sort either the TITLE, in this case the MONTHS, or sort the associated information so that you can either list by TITLE or list by the other information.
If the TITLE was the name of a piece of music and the other information was the ARTIST, the list could be printed in alphabetical order of TITLE or ARTIST.

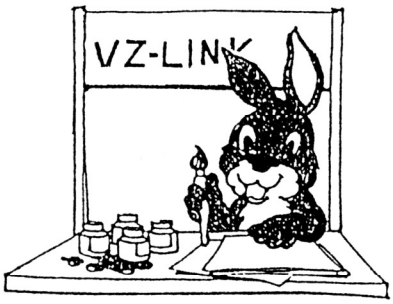
Programming with this kind of facility in mind you should become familiar with 2-dimensional arrays. Those that look like Z$(A,B) where the A holds the position in a list and the B holds the information to be listed. The variations are limited only by your imagination.
And as we said at the beginning, the VeeZed computer is ideal for those who take a delight in programming in BASIC.
The editing of lines is easy, trial and error of ideas are supported by error codes that aid in getting it right. All you really need is the time.

```
10 'INSERTION SORT
20 'PROGRAM FOR ROUTINE STUDY
30 'MONTH MAY BE INPUT AS            DECEMBER, DEC OR 12
100 CLEAR2000:I=12:DIMZ$(I),Z(I)
110 CLS:GOSUB300:PRINT"ENTER SALES FIGURE FOR "
120 FORI=1TO12
130 PRINTZ$(I);:PRINTTAB(12)"$";:INPUTZ(I)
140 NEXT:CLS
150 PRINT"SELECT MONTH":INPUTM$:I=VAL(M$):IFM$=""THEN150
160 S$=MID$(M$,1,3)
162 IFS$="OCT",I=10ELSEIFS$="NOV",I=11ELSEIFS$="DEC",I=12
164 IFS$="JUL",I=7ELSEIFS$="AUG",I=8ELSEIFS$="SEP",I=9
166 IFS$="APR",I=4ELSEIFS$="MAY",I=5NEXTIFS$="JUN",I=6
169 IFS$="JAN",I=1ELSEIFS$="FEB",I=2ELSEIFS$="MAR",I=3
170 IFI<0ORI>12,150
180 PRINTZ$(I),:PRINT"$"Z(I):I=0
190 PRINT:GOTO150
300 FORJ=1TO12:READN$:Z$(J)=N$:NEXT:RETURN
302 DATAJANUARY,FEBRUARY,MARCH,APRIL,MAY,JUNE,JULY,AUGUST
304 DATASEPTEMBER,OCTOBER,NOVEMBER,DECEMBER
330 DATASEPTEMBER,OCTOBER,NOVEMBER,DECEMBER
400 'MONTH CAN BE INPUT USING
401 'A NUMBER (12) OR FIRST 3
402 'LETTERS (DEC) OR FULL
403 'NAME (DECEMBER)
```

```
260 FORP=1TOLIMIT
262 FORI=1TOLIMIT-P
270 IFZ$(I)>Z$(I+1)THENT$=Z$(I):Z$(I)=Z$(I+1):Z$(I+1)=T$'SWAP
280 NEXT:GOSUB300
290 NEXT:GOSUB300
299 PRINT"THAT'S ALL FOLKS!":FORI=1TO2000:NEXT:RUN
300 PRINT@0,"LIST":FORI=1TO13:PRINTZ$(I):NEXT:RETURN
400 TEMP$=Z$(COIN)
410 Z$(COIN)=Z$(CHAIN)
420 Z$(CHAIN)=TEMP$
439 GOSUB300
440 RETURN
```

The second example is along the same lines as the first, only this time the items to be listed are INPUT by you.
If, instead of typing in an item, you just hit RETURN, the program will go into the sorting routines automatically. The unsorted list is printed and then replaced by the sorted list.

```
10 'EXAMPLE SHELL SORT - INPUT
30 'INPUT <RETURN> TO END            LISTING.
40 'PROGRAM FOR ROUTINE STUDY
50 '"[illegible]                    [illegible]
60 GOSUB410
100 CLEAR3000:LIMIT=1000:DIMZ$(LIMIT):I=1:CLS
110 PRINT"ENTER WORD"I:INPUTZ$(I):IFZ$(I)=""THEN130
120 I=I+1:GOTO110
130 A=1:LIMIT=I-1:LCARD=INT(LIMIT/2):LNUMB=LCARD+1:CLS:GOSUB300
140 FORPASS=1TOLIMIT:FORCOIN=1TOLCARD':GOSUB300
150 FORCHAIN=LCARDTOLIMITSTEPLNUMB
160 IFZ$(COIN)>Z$(CHAIN)THENGOSUB400
170 IFCHAIN>LIMITTHENLCARD=INT(LNUMB/2):GOTO180
180 NEXT:A=A+1
190 NEXT
200 LCARD=INT(LIMIT/2):LNUMB=LCARD-1:IFLCARD=1THEN220
210 NEXT
220 FORP=1TOLIMIT:FORI=1TOLIMIT-P
230 IFZ$(I)>Z$(I+1)THENT$=Z$(I):Z$(I)=Z$(I+1):Z$(I+1)=T$
240 NEXT
250 NEXT:SOUND10,1:CLS:GOSUB300
260 PRINT"------------":PRINT:GOTO110
300 CLS:FORI=1TOLIMIT:PRINTZ$(I):NEXT:RETURN
400 TEMP$=Z$(COIN):Z$(COIN)=Z$(CHAIN):Z$(CHAIN)=TEMP$:RETURN
410 CLS:PRINT@96,"INPUT [illegible] ONLY TO START SORT."
420 FORT=1TO2000:NEXT:RETURN
```



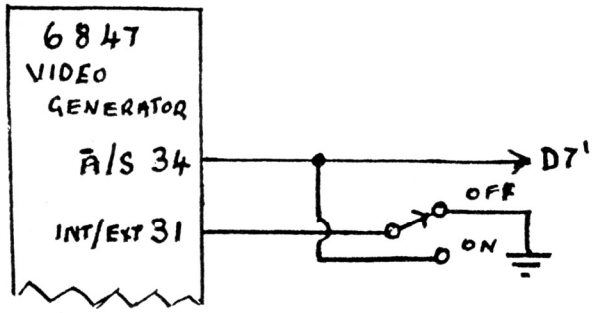
ENABLING SEMIGRAPHICS SIX ON THE VZ200/300

By Pete Patterson

It was at the last workshop when our special guest,Bob Kitch,was talking about the setups of the various versions of the VZ's sold in U.K. and Germany. He mentioned that some versions had the Semigraphics Six as a standard setup and it was relatively easy to modify the VZ's to enable the function.

A look at the MOTORALA Application Sheet for the MC6847 Video Display Generator I.C.,showed that to enable the Semigraphics Six mode,pins 34 and 31 had to be high,whereas the Semigraphics Four mode,which the VZ's use,only had pin 34 going high to enable that function. A look at the VZ circuit showed pin 31 (INT/EXT) was permanently earthed with pin 34 ($\overline{A}$/S) connected to the DATA 7 line.

Using my old VZ200 to experiment with,I accessed the P.C. board and cut the earth track away from the 6847's pin 31. A minature changeover switch was wired up and fitted to the VZ as shown below.



After re-assembling the VZ200, hooking it up to the colour telly, I pressed SHIFT and Q keys. It worked. Up came a Semigraphics Six symbol. Operating all the Semigraphics keys on the VZ gave me a pattern of 16 different graphic symbols across the TV screen.

But how do you get the rest of the graphics?,a total of 64 combinations. That had me stumped. I was assuming that the versions of the VZ's used overseas used some of the unused SHIFT key positions, but another 48, no way.

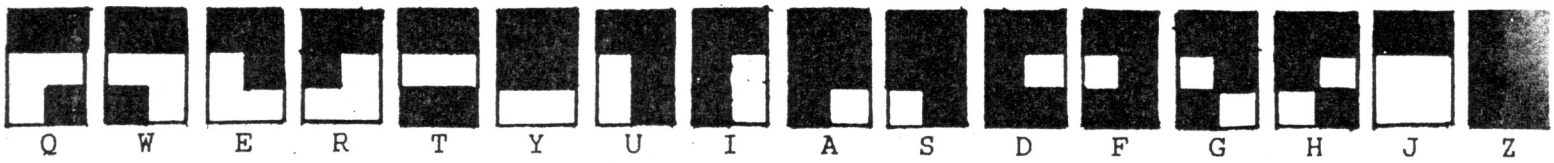
Looking again at the MOTOROLA application sheet I noted that in Semigraphics Six you can change the background colour of the graphics. Thought I will have a look at them. Typing in COLOR4, gave me the same colour background, but a different set of graphics with the VZ's Semigraphics keys. Checking COLOR3, COLOR2 and COLOR1 showed the same colour background, but with each colour selection, a different set of graphics using the Semigraphics keys.(COLOR 5 to 8 giving the same sets of graphics but with a different background colour).

Unfortunately I found that you cannot COPY the graphics to the printer. All you get is the VZ's Semigraphics Four graphics. Even though it seems that the Semigraphic Six routines are in the ROM, the printer graphics are either not there or not accessible.

For those members of the club that are interested, I have reproduced on the next page the graphic sets and how they show up with the four low resolution background colours. (COLOR,0.COLOR,1.POKE30744,1, COLOR,0 and COLOR,1)

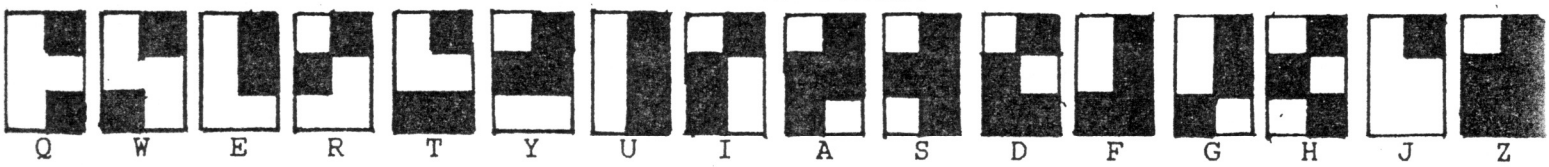
The letters represent the Semigraphics keys.

COLOR1 or COLOR5

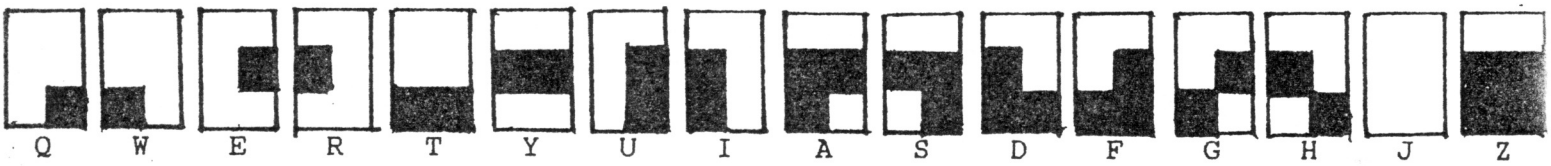


COLOR2 or COLOR6

COLOR3 or COLOR7



COLOR4 or COLOR8

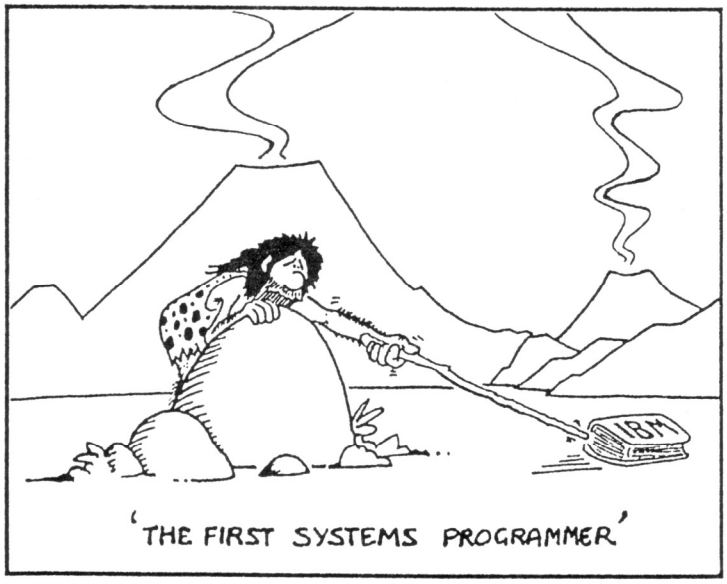


COLOR,0 (Green screen with black characters).
COLOR 1 to 4 Semigraphics black, blue background. COLOR 5 to 8 Semigraphics black,red background,

COLOR,1 (Orange screen with black characters).
COLOR 1 to 4 Semigraphics black, magneta background. COLOR 5 to 8 Semigraphics black, buff background.

POKE30744,1COLOR,0 (Dark green screen with green characters).
COLOR 1 to 4 Semigraphics black, magneta background. COLOR 5 to 8 Semigraphics black, red background.

POKE30744,1COLOR,1 (Red screen with white characters).
COLOR 1 to 4 Semigraphics black, magneta background. COLOR 5 to 8 Semigraphics black, buff background.



P.O BOX 1972 C.P.O AUCKLAND N.Z

(C) AUCKLAND VZ 300/200 COMPUTER USERS CLUB (1986)
NEW ZEALAND VZ 300/200 COMPUTER USERS CLUB (1989)

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YOU ARE WELCOME TO PHONE ME IF YOU HAVE PROBLEMS.
PHONE 761-451 AFTER 6.00 PM.

ZGH LTEKTZ

CLOAK AND DAGGER DEPT.

How many times when you were at school did you send secret messages to your friends? I remember I did, many times! Remember how much fun it was? Well, now you can relive those days of joke-and-dagger fun with this little program, lifted from the files of the Pentagon and MI6 (!)

(FX: CRIME THEME)

James Bong, Super-Secret Agent 008, received a message from 'VZ' in the mail. It was in secret code, of course. Smiling, James Bong retired to his computer room and switched on the trusty VZ 300. Very carefully he typed in the message code...

If you would like to find out what the translation of Bong's message was, and how to use the program fully, type in the program, then run it, and when asked, type in the message, add a '@' at the end, hit return and watch what happens! No doubt your kids will have just as much fun too!

Here is the message as received from 'VZ' by James Bong:

MTSS RGFT LTEKTZ QUTFZ LZGH BGX UGZ BIT HKGUKQD ZG MGKA
LZGH BGX MOSS YOFR ZIQZ ZIT HKGUKQD MOSS FGZ QEETHZ
GXFEZXQZOGF GY FXDWTKL LG ZITLT DXLZ WT LHTSZ GXZ LZGH OY
BGX MQFZ ZG EIQFUT ZIT EGRT ZIT PXLZ DON XH ZIT QSHIQWTZ QFR
HXZ OZ OFZG SOFT YOCT IXFRKTRR OF ZIT RQZQ LZWZTDTFZ LZGH
RGFZ YGKUTZ ZG STZ BGXK YKOTFR IQCT ZIT EGRT GY ZIT DTLLQUT
GK IT MOSS FGZ WT QWST ZG RTIGRT OZ LZGH IQCT YXF QFR UGGR
SXEA LTEKTZ QUTFZ LZGH DTLLQUT TFRL@

(Don't forget the '@'! Can YOU work out what 'VZ' was saying?!)

****

```
1 REM SECRET AGENT CODE ENCRYPT/DECRYPT PROGRAM
2 REM COPYWRITE STEVE DALE 1990
3 GOSUB 550 :REM INITIALISATION
4 CLS
5 FOR ALPH=1 TO 27:READ Q$(ALPH):NEXT ALPH
8 FOR ALPH=1 TO 27:READ R$(ALPH):NEXT ALPH
10 PRINT"THIS PROGRAM WILL ENCODE AND DECODE YOUR SECRET MESSAGES!"
20 PRINT"WHICH DO YOU WANT TO DO; ENCODE OR DECODE (E/D)";:INPUT A$
30 IF A$="D" THEN 105
40 IF A$="E" THEN 100
50 PRINT"SORRY, NOT ALLOWED.   TRY AGAIN!": GOTO 20
100 CLS:PRINT:PRINT:PRINT"  * E  *  N  *  C  *  O  *  D  *  E *":GOTO 110
105 CLS:PRINT:PRINT:PRINT"  * D  *  E  *  C  *  O  *  D  *  E *"
110 PRINT:PRINT"OK, TYPE IN YOUR MESSAGE..."
115 PRINT"DON'T FORGET TO END WITH A "Z$"@"Z$" TO FINISH!"
116 PRINT "
120 FOR G=1 TO 1000
122 I$=INKEY$
125 D$=INKEY$:IF D$="" THEN 125
130 LET B$(G)=D$
140 PRINT B$(G);
145 IF B$(G)="@" THEN 200
150 NEXT G
200 PRINT:PRINT"HERE IS THE MESSAGE..."
201 FOR G=1 TO 1000
202 IF B$(G)="@" THEN 300
203 IF A$="D" THEN GOSUB 350:GOTO 210
204 FOR H=1 TO 27
205 IF R$(H)=B$(G) THEN 207
206 NEXT H
207 LET E$(G)=Q$(H)
210 PRINT E$(G);
220 NEXT G
300 PRINT:PRINT "WOULD YOU LIKE A PRINTOUT";:INPUT C$
310 IF C$="Y" THEN GOSUB 400
320 PRINT"OK, SO LONG SECRET AGENT!"
330 STOP
350 REM DECODE
360 FOR H=1 TO 27
365 IF Q$(H)=B$(G) THEN 375
370 NEXT H
375 LET E$(G)=R$(H)
380 RETURN
400 REM PRINTOUT
410 FOR X=1 TO G
420 LPRINT E$(X);
430 NEXT X
450 RETURN
500 DATA Q,W,E,R,T,Y,U,I,O,P,A,S,D,F,G,H,J,K,L,Z,X,C,M,N,B,V," "
510 DATA A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y,Z," "
550 REM INITIALISATION
552 LET Z$ = CHR$(34)
553 DIM B$(1000), E$(1000), Q$(27), R$(27)
555 DIM G(1000), H(27), X(1000)
560 RETURN
```

Potpourri

with Ken Clarke.

A potpourri of ideas, software modifications, help-line, your ideas, suggestions, gripes, where to find it, cheats, pokes and infinite lives, adventure gaming help-line, hardware help in construction, or in fact anything that other VZ'ers could be interested in or be able to find help for you.....

Try comparing the "SOUND EFFECTS" program of Issue #44 [June '90] with the program of the same name in Issue #5 [Feb. '87].
[See Peter if you haven't got it.]
This will help with ideas to produce NEW SOUNDS for the latest program.
As a further help, I have written an up-date of extra sounds for the earlier program of Issue #5. This also includes a new screen presentation plus a minor alteration to return the 'duration' address [-28682] back to it's starting figure [3]. You will note that I have purposely left blank spaces for new sounds to be added.
Hopefully, one of the NEW SOUNDS to be added is being carefully studied with a view to VZ Digitisation by Martin. Here are the amendments:-

```
230 PRINT"[illegible]";
240 PRINT"[illegible]";
250 PRINT"[illegible]";
260 PRINT"[illegible]";
270 PRINT"[illegible]";
280 PRINT"[illegible]";
290 PRINT"[illegible]";
320 PRINT@466,"      ";
330 PRINT@448,"ENTER OPTION #  ";:INPUTOP$
400 '*****BRANCH TO CHOICE*****
410 IFOP$="A",1100ELSEIFOP$="B",1200
420 IFOP$="C",1300ELSEIFOP$="D",1400
430 IFOP$="E",1500ELSEIFOP$="F",1600
440 IFOP$="G",1700ELSEIFOP$="H",1800
450 IFOP$="I",1900ELSEIFOP$="J",2000
460 IFOP$="K",2100ELSEIFOP$="L",2200
470 IFOP$="M",2300ELSEIFOP$="N",2400
500 IFOP$="O"THENCLS:STOP
```

AMEND 1360, 1480, 1750, 1850 TO :-

```
POKE-28682,3:GOTO210
```

DELETE 1960

THE NEW SOUNDS

```
2000 '*****SHIP SIREN*****
2010 CLS:PRINT@233,"SHIP SIREN"
2020 POKE-28682,8:FORY=1TO10
2030 FORT=200TO80STEP-8:POKE-28685,T:X=USR(0):NEXTT
2040 FORQ=1TO150:NEXTQ:NEXTY
2050 POKE-28682,3:GOTO210
2100 '*****BURGLAR ALARM*****
2110 CLS:PRINT@233,"BURGLAR ALARM"
2120 POKE-28682,255
2130 FORT=1TO10
2140 POKE-28685,50:X=USR(0):POKE-28685,60:X=USR(0):NEXT
2150 POKE-28682,3:GOTO210
2200 '*****POLICE SIREN*****
2210 CLS:PRINT@233,"POLICE SIREN"
2215 POKE-28682,9:FORQ=1TO5
2220 FORT=200TO80STEP-4:POKE-28685,T:X=USR(0):NEXTT
2230 FORT=80TO200:POKE-28685,T:X=USR(0):NEXTT:NEXTQ
2240 POKE-28682,3:GOTO210
2300 '*****TELEPHONE*****
2310 POKE-28682,15:CLS:PRINT@233,"TELEPHONE"
2320 FORS=1TO5:FORY=1TO2:FORT=1TO8:POKE-28685,100:X=USR(0)
2330 POKE-28685,50:X=USR(0):NEXTT:FORQ=1TO50:NEXTQ:NEXTY
2340 FORQ=1TO400:NEXTQ:NEXTS:POKE-28682,3:GOTO210
```